

## CLAIMS

1. A process for selectively removing caffeine from a caffeine-containing catechin composition, which comprises dissolving said caffeine-containing catechin composition in a 9/1 to 1/9 by weight mixed solution of an organic solvent and water, and then bringing the resultant solution into contact with activated carbon.

2. A process for selectively removing caffeine from a caffeine-containing catechin composition, which comprises dissolving said caffeine-containing catechin composition in a 9/1 to 1/9 by weight mixed solution of an organic solvent and water, and then bringing the resultant solution into contact with activated carbon and also acid clay or activated clay.

3. A process for producing a green tea extract, which comprises dissolving a caffeine-containing catechin composition in a 9/1 to 1/9 by weight mixed solution of an organic solvent and water, and then bringing the resultant solution into contact with activated carbon to selectively remove caffeine.

4. A process for producing a green tea extract, which comprises dissolving a caffeine-containing catechin composition in a 9/1 to 1/9 by weight mixed solution of an organic solvent and water, and then bringing the resultant solution into contact with activated carbon and also acid clay

or activated clay to selectively remove caffeine.

5        5. The process according to any one of claims 1-4, wherein said caffeine-containing catechin composition is a tea extract, a concentrate of a tea extract, or a purified product of a concentrate of a tea extract.

6. The process according to any one of claims 1-5, wherein said caffeine-containing catechin composition comprises from 25 to 90 wt% of non-polymer catechins in terms of solid content.

10        7. The process according to any one of claims 1-6, wherein said caffeine-containing catechin composition is one purified by adding a solid concentrate of a tea extract, said solid concentrate comprising from 25 to 40 wt% of non-polymer catechins, to a 10/0 to 8/2 by weight solvent of an organic  
15 solvent and water, adding water to the resultant mixture to adjust a weight ratio of said organic solvent to water to from 9/1 to 5/5, removing undissolved solids, and then, distilling off said solvent.

20        8. The process according to any one of claims 1-6, wherein said caffeine-containing catechin composition is one purified by adding a solid concentrate of a tea extract, said solid concentrate comprising from 25 to 40 wt% of non-polymer catechins, to a 10/0 to 8/2 by weight solvent of an organic solvent and water, adding water to the resultant mixture to  
25 adjust a weight ratio of said organic solvent to water to a

range of from 9/1 to 5/5, removing solids from the resultant suspension, and then, distilling off said solvent from a remaining liquid phase.

9. The process according to any one of claims 1-6,  
5 wherein said caffeine-containing catechin composition is one purified by dissolving a solid concentrate of a tea extract, said solid concentrate comprising from 25 to 40 wt% of non-polymer catechins, in a mixed solvent of water and an organic solvent, adding an organic solvent to the resultant  
10 solution to adjust a weight ratio of said organic solvents to water to a range of from 9/1 to 5/5 such that a precipitate is caused to occur, removing solids from the resultant suspension, and then, distilling off said organic solvents from a remaining liquid phase.

15 10. The process according to claim 3 or 4, wherein a weight ratio of non-polymer catechins to caffeine in the resultant green tea extract is from 7 to 60.

11. A caffeine-containing tea extract, wherein:

(a) a content of gallates in non-polymer catechins is  
20 from 45 to 60 wt%,

(b) a weight ratio of said non-polymer catechins to caffeine is from 8 to 40,

(c) a weight ratio of said non-polymer catechins to (sucrose + glucose) is from 2 to 15, and

25 (d) dietary fibers amount to 0.5 wt% or less of a solid

content.

12. A packaged beverage comprising a green tea extract obtained by a process as defined in claim 3 or 4.

13. The packaged beverage according to claim 12, wherein  
5 said packaged beverage comprises from 0.092 to 0.5 wt% of non-polymer catechins, and a weight ratio of said non-polymer catechins to caffeine is from 7 to 60.

14. The packaged beverage according to claim 12, wherein:

10 said packaged beverage comprises from 0.092 to 0.5 wt% of non-polymer catechins,

(a) a content of gallates in said non-polymer catechins is from 45 to 60 wt%,

(b) a weight ratio of said non-polymer catechins to  
15 caffeine is from 8 to 40,

(c) a weight ratio of said non-polymer catechins to (sucrose + glucose) is from 2 to 15, and

(d) dietary fibers amount to 0.5 wt% or less of a solid content.

20 15. A process for purifying a solid concentrate of a tea extract, said solid concentrate comprising from 25 to 40 wt% of non-polymer catechins, which comprises adding said solid concentrate to a 10/0 to 8/2 by weight solvent of an organic solvent and water, adding water to the resultant mixture to  
25 adjust a weight ratio of said organic solvent to water to from

9/1 to 5/5, removing undissolved solids, and then, distilling off said solvent.

16. A process for purifying a solid concentrate of a tea extract, said solid concentrate comprising from 25 to 40 wt.% of non-polymer catechins, which comprises adding said solid concentrate to a 10/0 to 8/2 by weight solvent of an organic solvent and water, adding water to the resultant mixture to adjust a weight ratio of said organic solvent to water to a range of from 9/1 to 5/5, removing solids from the resultant suspension, and then, distilling off said solvent from a remaining liquid phase.

17. A process for purifying a solid concentrate of a tea extract, said solid concentrate comprising from 25 to 40 wt% of non-polymer catechins, which comprises dissolving said solid concentrate in a mixed solvent of water and an organic solvent, adding an organic solvent to the resultant solution to adjust a weight ratio of said organic solvents to water to a range of from 9/1 to 5/5 such that a precipitate is formed, separating solids from the resultant suspension, and then, distilling off said organic solvents from a remaining liquid phase.

18. The purification process according to any one of claims 15-17, wherein a content weight ratio  $[(B)/(A)]$  of (B) oxalic acid to (A) non-polymer catechins in said concentrate of said tea extract after said purification is from 0.002 to

0.035.

19. The purification process according to any one of claims 15-18, wherein said organic solvent is a hydrophilic organic solvent.

5        20. A green tea extract wherein a content weight ratio [ (A) / (B) ] of (A) non-polymercatechins to (B) total polyphenols is from 0.83 to 0.96.

21. A packaged beverage comprising:

a green tea extract as defined in claim 20,

10        wherein a concentration of non-polymercatechins in said beverage is from 0.092 to 0.5 wt%.